KCU-02 Monitor

Software Installation User Manual

For Windows XP and Windows 7

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SECTION 1 :

Application Installation

1. Insert the installation Disk into CD ROM drive.
2. Double click on file setup.exe to begin installation.

Figure 1-1

3. Select the primary installation directory and press Next.

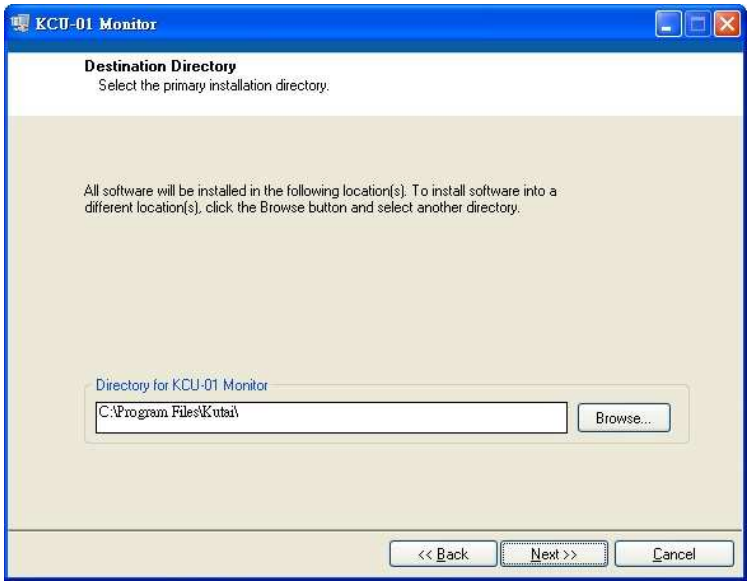

KCU-01 Monitor
Destination Directory
Select the primary installation directory.
All software will be installed in the following location(s). To install software into a different location(s), click the Browse button and select another directory.
Directory for KCU-01 Monitor
C:\Program Files\Kutai\
Browse...
<< Back
Next >>
Cancel

Figure 1-2

4. The Installation Wizard will display the summary of installation content, and then press Next.

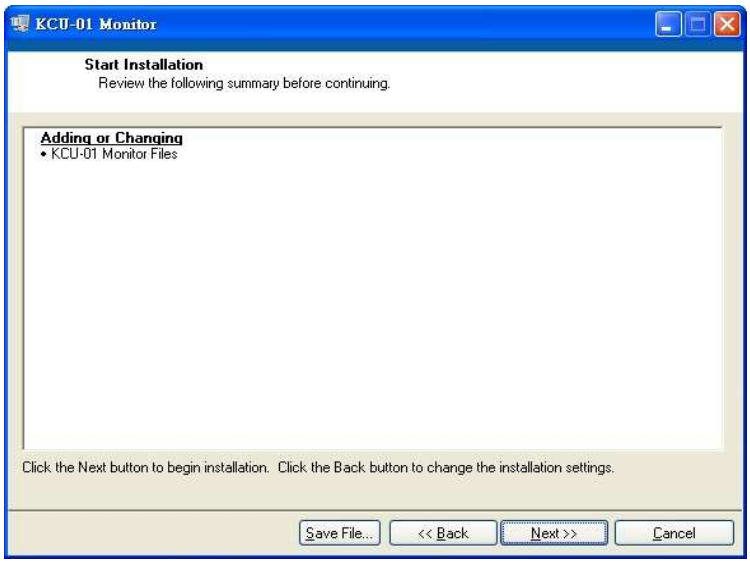

KCU-01 Monitor
Start Installation
Review the following summary before continuing.
Adding or Changing
• KCU-01 Monitor Files
Click the Next button to begin installation. Click the Back button to change the installation settings.
Save File...
<< Back
Next >>
Cancel

Figure 1-3

5. Software installing

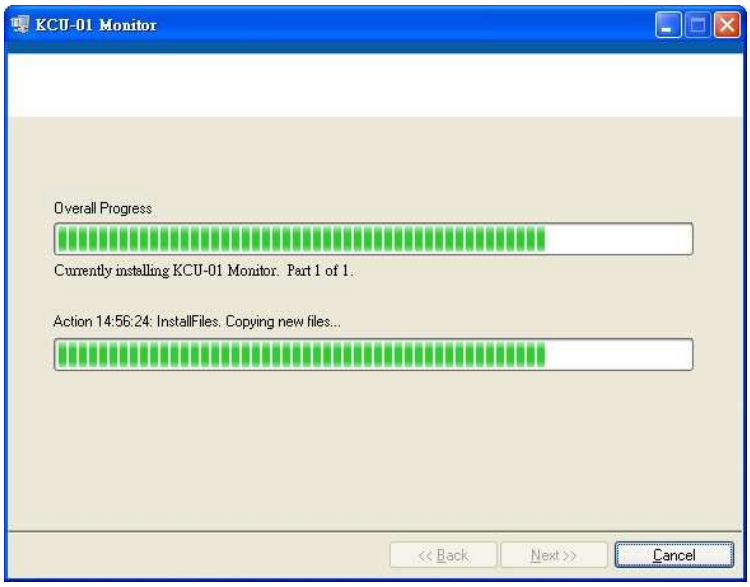


Figure 1-4

6. Installation completed. Press Next

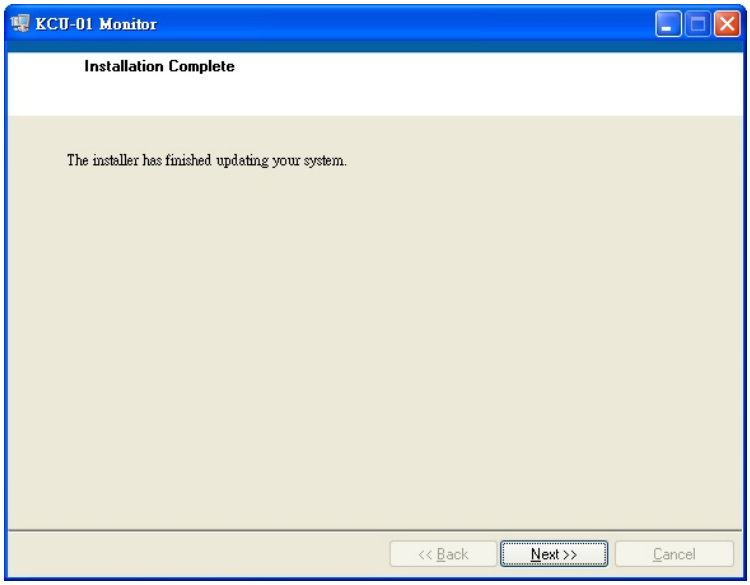


Figure 1-5

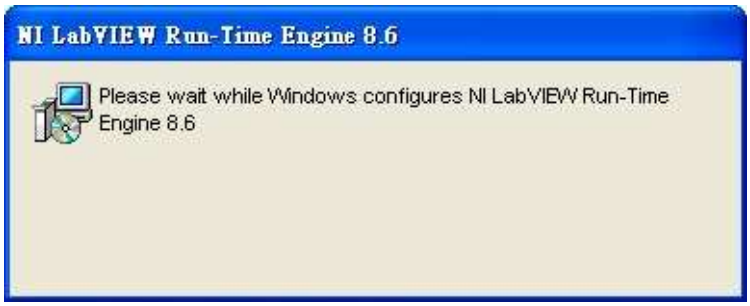


Figure 1-6

7. Install Run-Time Engine Driver software.

Figure 1-7

8. When the Run-Time Engine Driver installation is completed, press OK to finish installation process.

Figure 1-8

9. Click on Yes to restart.

NI-VISA Runtime 4.4.1
You must restart your system for the configuration changes made to NI-VISA Runtime 4.4.1 to take effect. Click Yes to restart now or No if you plan to manually restart later.
Yes
No

Figure 1-9

SECTION 2 : System Setting

In the system setting, user can modify data, event log, record path and data extraction parameters and interface language.

Open KCU-02 Monitor.exe, then click “Option” (See Figure 2-1), to open Option setting window (See Figure 2-2).

Figure 2-1 Options

Each System setting is illustrated below:

● Event Log Record Path

Setting the Event Log Record Path to file, when a Note or alarm generated, the system will automatically record the contents of the event, and save to file when leaving exiting monitoring.

Attention：Event Log Record is not available on ATS-PLC

● Data Log Record Path

When opening the monitor, the system will record the data at regular intervals and stored to file, this setting can change the directory of the data chart record and stored.

Models available with Data Log Record：AMF-10, GCU-100, GCU-3000

● Data Acquisition Interval

The system retrieves data every few seconds and store into file. Data are retrieved daily until 23:59pm and then system automatically retrieves and save data into a new file after 00:00am.

Attention : More frequent the recording interval is, larger the size of stored file becomes.

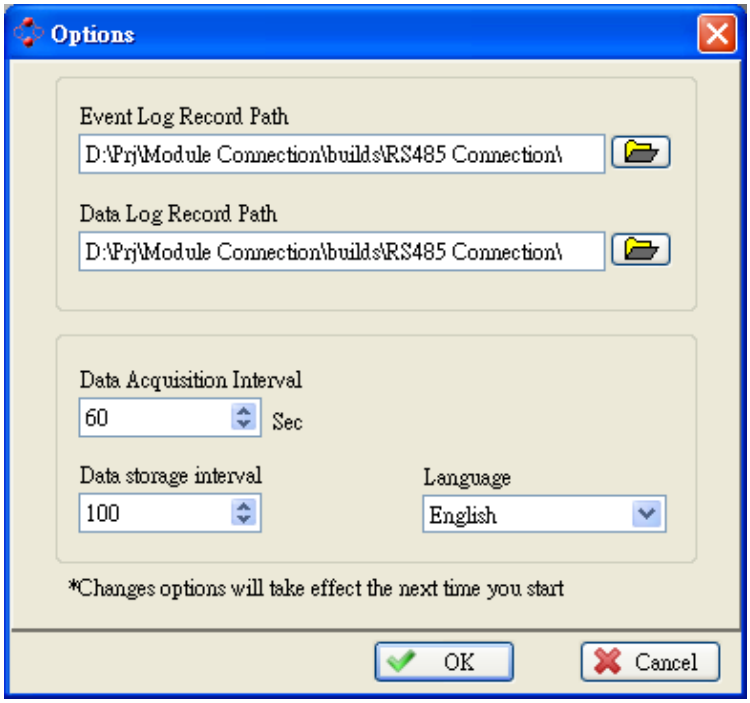


Figure 2-2 Program Setting

● Data Storage Interval

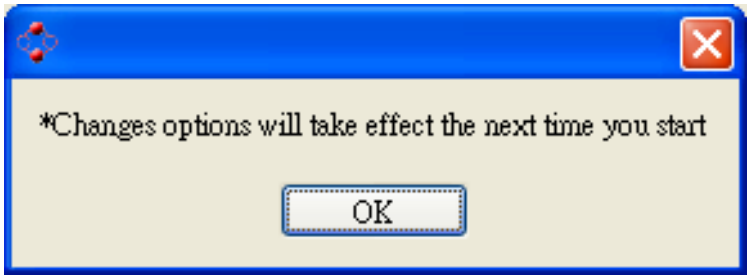
When connection is terminated, system will automatically retrieve the data and store into file. The setting of data retrieval and saving to file can be adjusted according to the amount of data accumulated. Intermittent data saving ensures preservation of records.

Attention：The efficiency of the system will be affected if the data storage is set frequent.

● Language

By changing the setting of display interface language, the language from event log language will also change accordingly.

Attention：System changes will take effect after restarting the application.



SECTION 3 :

Connecting to Network

3.1 Device Connection

Install the KCU-02 into the expansion slot at the back of the controller. Via the RS485 cable, connect PC to the RS485 device then connect from device to KCU-02, make sure the controller is power on and then run file “KCU-02 Monitor.exe”.

Click “COM Port” key to enter port setting (Figure 3-1).

Figure 3-1

Choose the correct COM port and baud rate (the baud rate must be consistent with the Controller) and then click “Connect” (Figure 3-2).

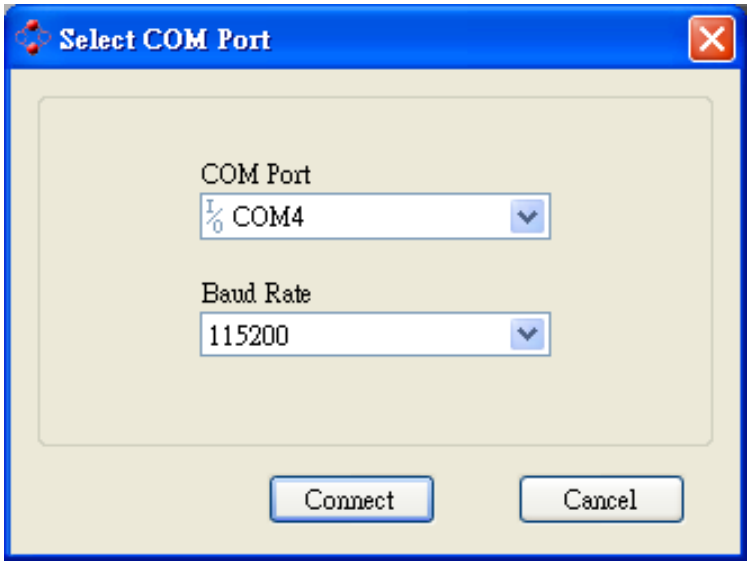


Figure 3-2 Selecting COM port and Baud rate

System resumes to main screen and automatically searches for all installed devices. (Figure 3-3).

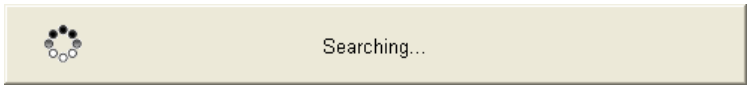


Figure 3-3 Searching for device

The searching process may take a few seconds only and then display all connected device(s).

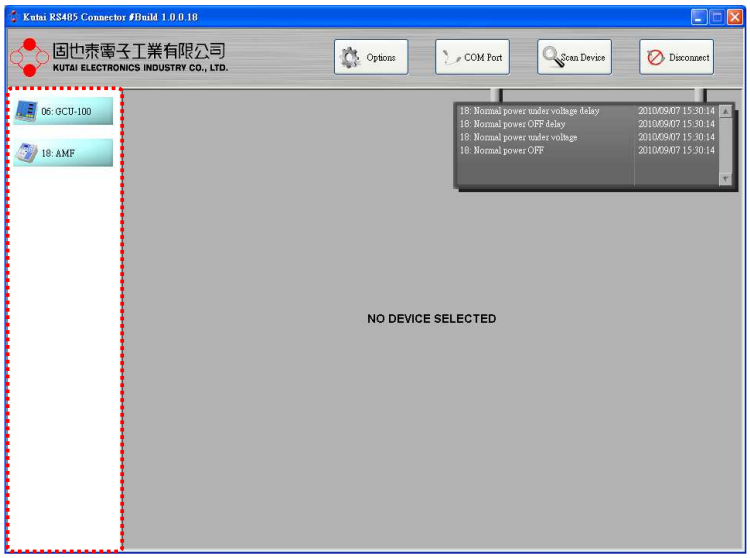


Figure 3-4 Connected Device

3.2 Re-Scan for device

To update or scan for installed device(s), go to the main screen and click on the “Scan Device” key (Figure 3-5)

Figure 3-5 Re-Scan for Device

3.3 Disconnect

To disconnect or remove device, click on the “Disconnect” key from the main screen. (Figure 3-6)

Figure 3-6

3.4 Online Controller Listing

After the system completes searching available controller(s), all connected controller(s) and status will be displayed on the top left of the screen.

1. Thumbnail of the connected controller.
2. Controller ID and model name.
3. Indication of the current displayed monitor of corresponding controller on the display screen.
4. The 3 types of controller status (As shown below).

Operating

Warning or Shutdown

Offline Status

3.5 Event Overview

When the controller sends out a Note signal, the system will record the corresponding controller ID, Note message and time of occurrence in the event log. (As shown from the below illustration).

1. Event ID(Don't care)
2. Description of event
3. Time of occurrence

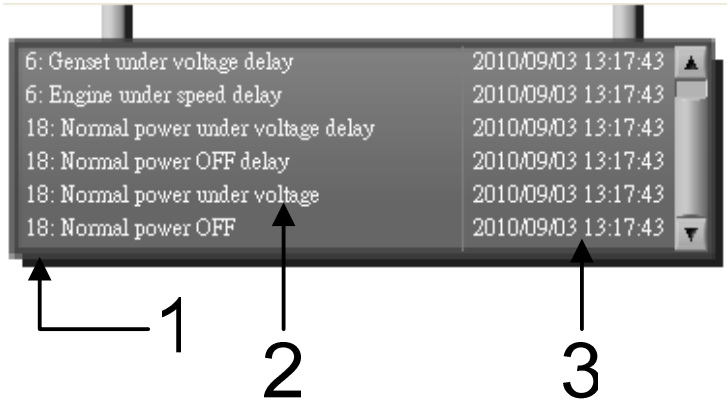

6: Genset under voltage delay 2010/09/03 13:17:43
6: Engine under speed delay 2010/09/03 13:17:43
18: Normal power under voltage delay 2010/09/03 13:17:43
18: Normal power OFF delay 2010/09/03 13:17:43
18: Normal power under voltage 2010/09/03 13:17:43
18: Normal power OFF 2010/09/03 13:17:43
1
2
3

Figure 4-9 Ensure whether the Modem is connected

SECTION 4 : Monitoring

KCU-02 is able to connect to several controllers via RS485 at the same time. By clicking on different controller icon on the left of the screen, the display screen will immediately open up the corresponding controller's monitoring screen. The current supportive modules include AMF-10, AMF-11, GCU-100, GCU-3000, ATS-22, ATS-33, ATS-34, ATS-PLC.

* Majority of the display content and function of the ATS-PLC, is synchronized with actual operation Example：Monitoring GCU-100

Figure 4-1 Controller Monitoring Screen

4.1 Virtual Operation

On the PC monitoring screen, all functions and lightings are virtually displayed and synchronized with the actual controller' status (See Figure 4-2)

Attention ： The displayed screen varies with different controller connected.

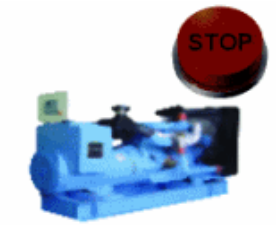
Figure 4-2 Virtual Operation

4.2 Generator Status

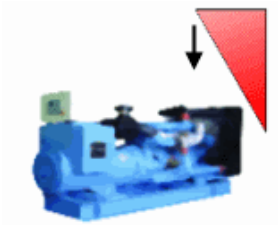
As shown in Figure 4-3. There are total of seven types of generator operation status.

Figure 4-3 Generator Status

Running



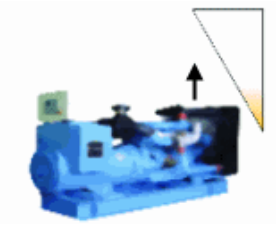
Engine Shut-down



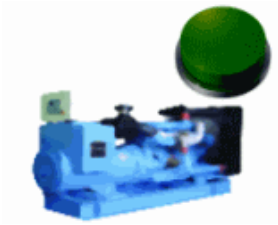
Engine Coiling down

Idle

Stop



Pre-Heat



Cranking

4.3 Other Information

Shown in Figure 4-4

Attention：The displayed frame varies with different connected control modules.

- Maintain (HH:mm)：Maintain service countdown.
- Run Hr.(H:m)：Hours of operating.
- Battery：DC Voltage.

Figure 4-4 Other Information

4.4 Connection Status

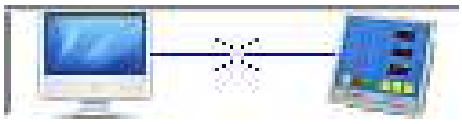
As shown in Figure 4-5 displays the current controller connection status.

- Link：There are two connection methods to KCU-02 module, USB Port Connection and Modem Connection. It will display the connection method here.
- Device：The control module of current connection.

Figure 4-5 Connection Status

Connection Status

Connecting



Disconnecting

4.5 Instrumentation

As shown in Figure 4-6. The instrumentation displayed content, meter scales and related settings vary according to different control module connected.

Attention：The displayed frame varies with different connected control modules.

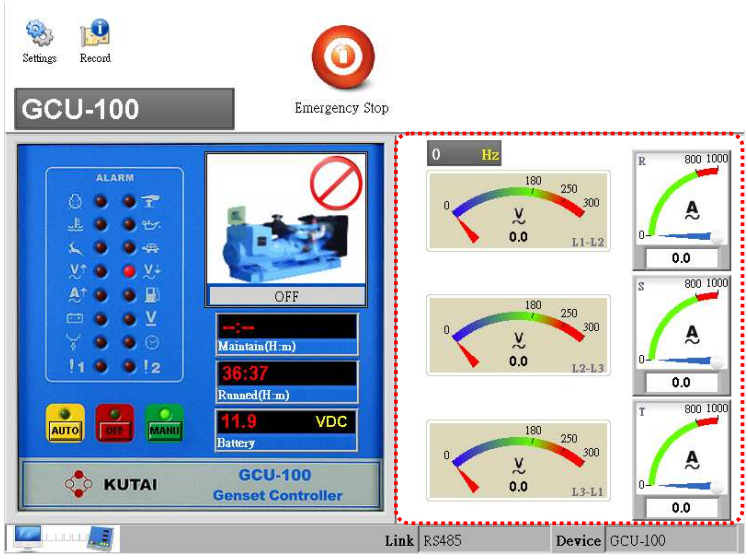


Figure 4-6 Instrumentation

The Figure 4-7 is emergency power meter.

Under voltage setting on 180VAC

Over voltage setting on 250VAC

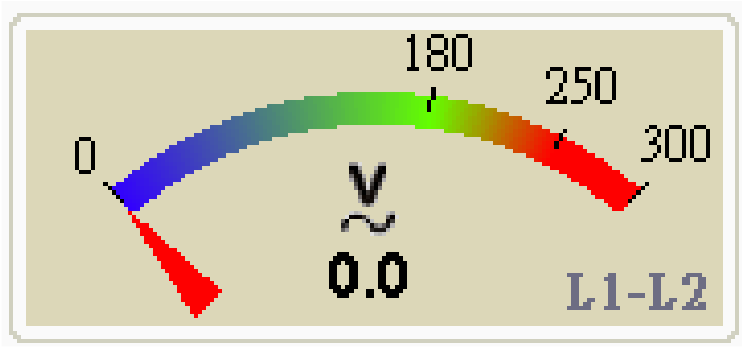


Figure 4-7

4.6 Emergency Stop Button

This is emergency stop button shown in Figure 4-8. The system will automatically send out emergency stop command when clicked on it.

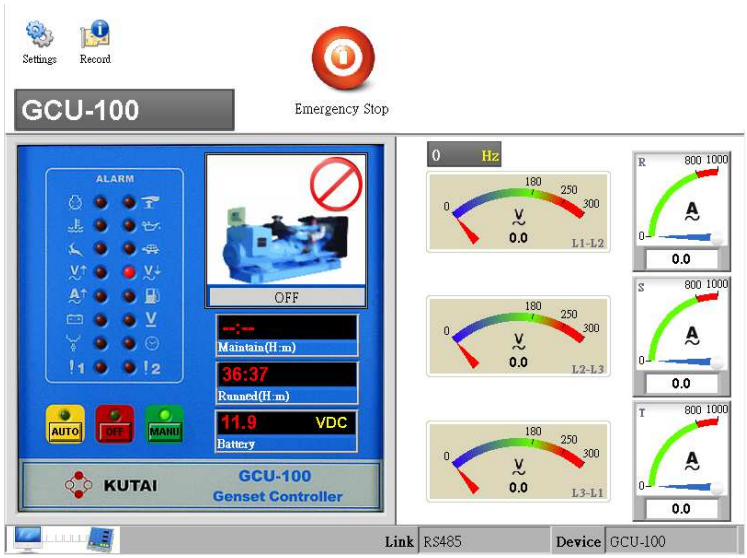


Figure 4-8 Emergency Stop Button

When controller system internal setting allow remote access, then the button will appear to be accessible status (Figure 4-9); When access is deactivated, the button will appear as un-accessible shows in (Figure 4-10).

Figure 4-9

Figure 4-10

Attention：When the remote access is cancelled, all executing button are deactivated on the virtual operation display.

If remote access is activated, when click on the emergency stop button, a pop up window will appear and requesting for confirmation of execution. Click OK and system will immediately execute emergency engine stop.

Ensure whether to activate emergency stop

The pointer will pop up when clicking on the emergency stop button with the controller switch OFF.

It will show OFF mode already

SECTION 5 :

Parameter Setting

From main screen, select “Controller → Setting” to open parameter setting. Controller must be switched to OFF status prior to programming, otherwise system will not be permitted to enter parameter setting screen (See Figure 5-1).

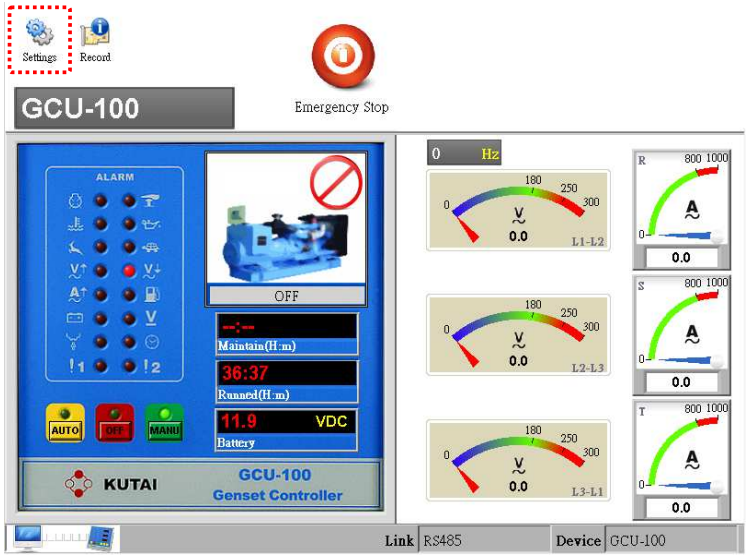


Figure 5-1

Attention : Controller must be switched to OFF status prior to programming, otherwise system will not be permitted to enter parameter setting screen (See Figure 5-2).

Figure 5-2 Can only enter setting at OFF Mode

After opening up the setting page, and changed the parameter(s), if the new setting differs from previous setting, the green markers (See Figure 5-3) on the left of the parameter will be highlighted, indicating has changed the setting and waiting to be updated.

: Default setting or setting not changed.

: Parameter(s) changed and awaiting to be updated.

Figure 5-3

Example：In Figure 5-4, 2 parameters have been changed, after clicking on the Update button the system will execute remote update. The update process usually take a few seconds only, some updates are immediately effective and displayed (Reference from Figure 4-7)

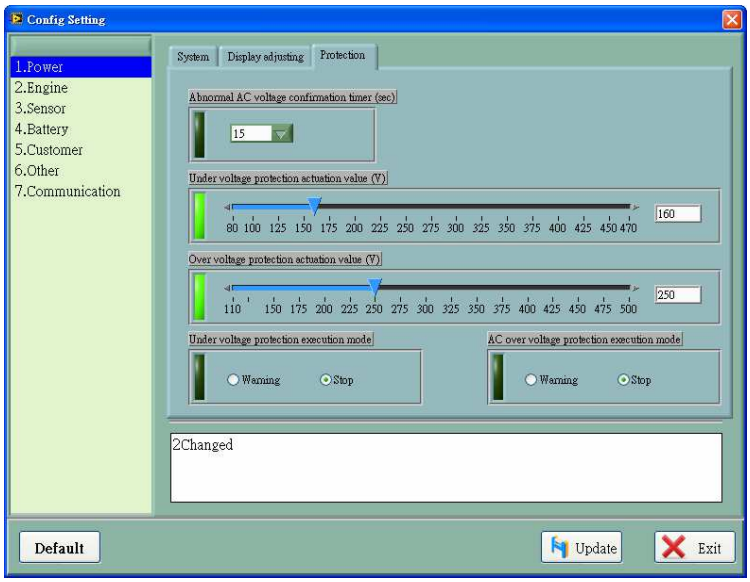


Figure 5-4 Modified Entry will be marked

Default, in anytime, user can click on the Default key to resume to factory settings. Any setting that differs from the default, the markers will be highlighted. Click on the Update key to continue setting update.

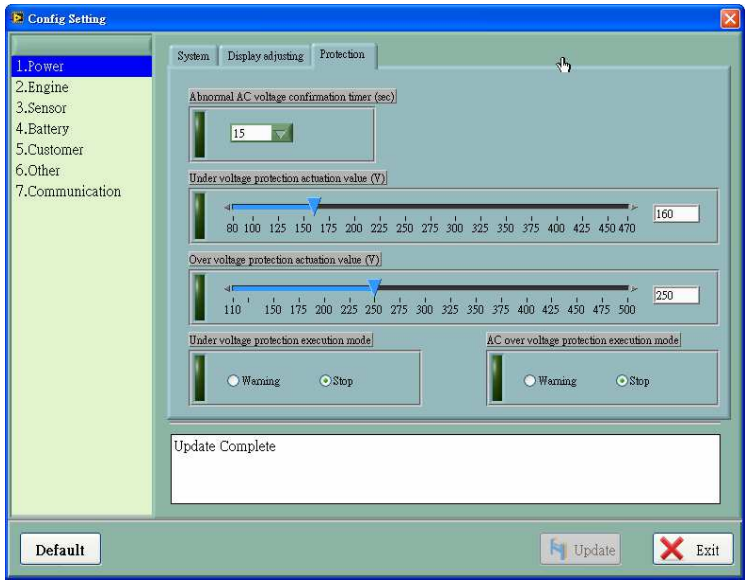


Figure 5-5 Update Complete

Section 6 : Recording

Record key is available on the top left of all monitoring screen (See Figure 6-1). Click on the Record key to open and view Graph Recording (See Figure 6-2).

Figure 6-1

Once the system is online, it will immediately begins to record data according to user's setting and transforming each periodic recording into curve chart. Each chart's vertical coordinates will be automatically adjusted by system.

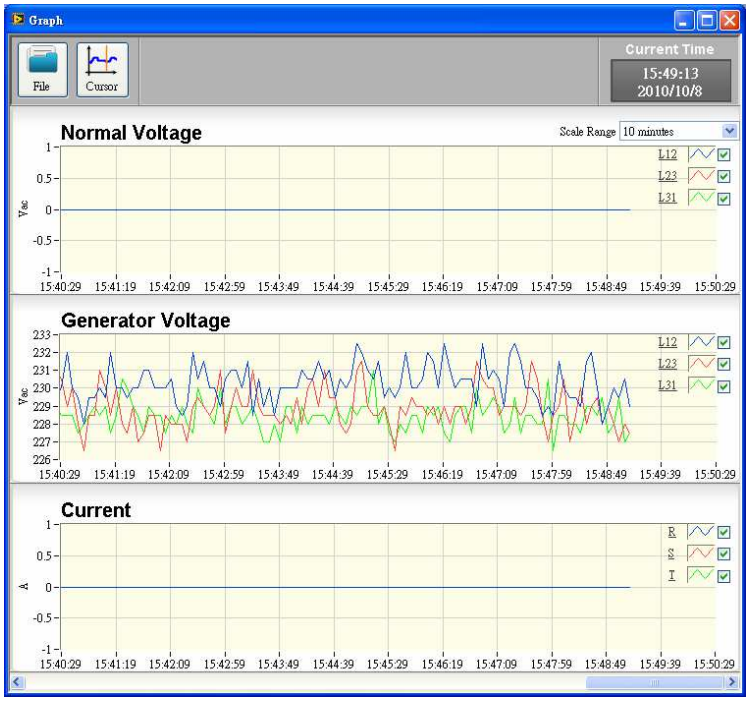


Figure 6-2 Graph Record Log

6.1 Show Curve Lines

The selection box enable user to choose whether to display curves which enables user to better observe certain curve graphic.

: Show Curve Lines

: Hide Curve Lines

Figure 6-3 Selection box

6.2 Drop-Down Menu Scale Range

It can adjust the length of data to be showed at once with scale range of 1 minute, 10 minute, 30 minutes, 1 hour, 5 hours, 10 hours and one day.

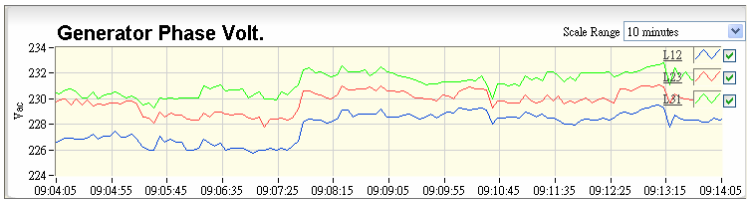


Figure 6-4 Within 10 minutes Range

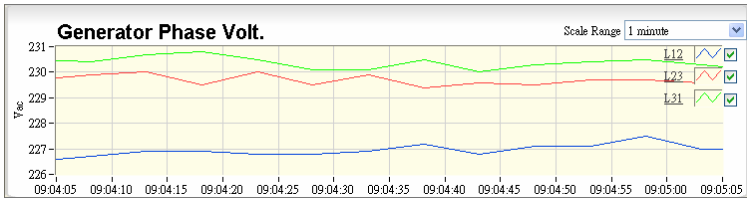


Figure 6-5 Within 1 minute Range

6.3 History Record

To view history files, click File button and select history file of which the file names shows the file currently being reviewed. Furthermore, the data acquisition will continue processing wile files are being opened and reviewed. Click on Close File to return to data acquisition menu.

Attention：The record file can only be selected according to the current monitoring module. If the current monitoring module is GCU-3000, then only GCU-3000 record file can be selected.

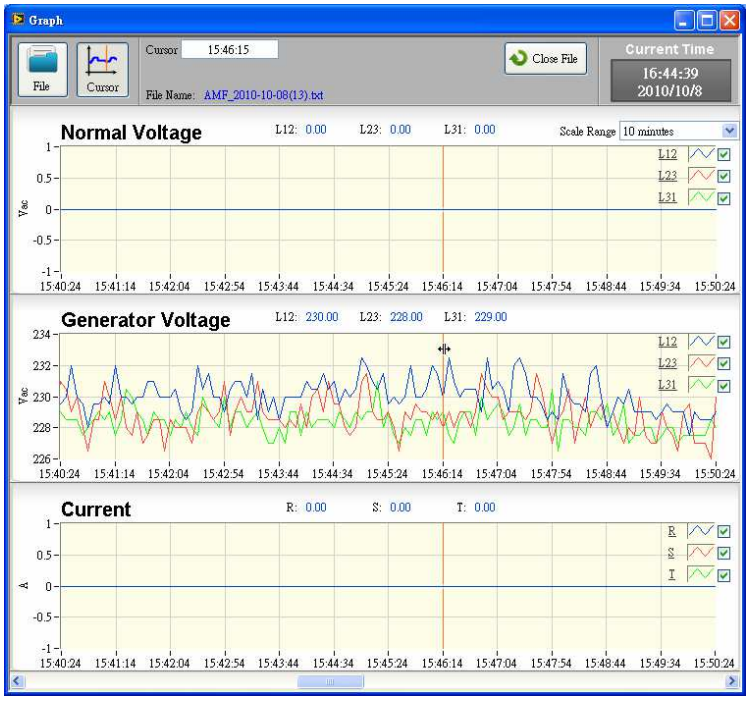


Figure 6-6 History File Record Log

6.4 Function of Cursor

Click on Cursor button to activate the coordinate axis on each diagram. The coordinate axis on the diagrams will move along with the motion of mouse simultaneously (See Figure 6-7) and display the time period of cursor position (See Figure 6-8).

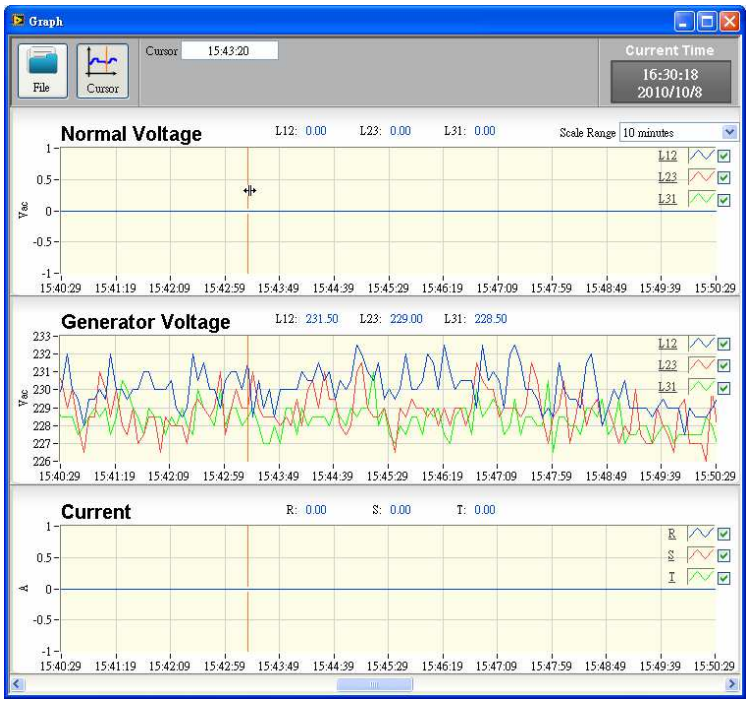


Figure 6-7 Cursor moves with the mouse

Current time of the cursor

Figure 6-8 Shower the current time